

[DOWNLOAD](#)

Degradation of cycloalkanes and n-alkanes in the water phase of biotrickling filter systems

By Diego Salamanca Velandia

DIV Deutscher Industrieverlag Dez 2015, 2015. Taschenbuch. Book Condition: Neu. 211x157x9 mm. Neuware - Cyclohexane is a highly volatile and colorless cyclic alkane mainly produced by hydrogenation of benzene. Cyclohexane can be widespread in the environment through petroleum and fuel spills. The United States Environmental Protection Agency (US EPA, 1994) reported several environmental issues related to gas emissions containing cyclohexane. Moreover, the toxicity of cyclohexane is related to its octanol-water partition coefficient (log KOW) with a value of 3.44 causing high cell damage. The saturated cyclic structure of cyclohexane makes it more recalcitrant compared to alkanes or monoaromatic compounds. In this study, two strains capable of degrading cyclohexane were isolated from the soil and sludge of the wastewater treatment plant of University of Stuttgart and from a biotrickling filter system. The strains were classified as gram-negative and identified as *Acidovorax* sp. CHX100 and *Chelatococcus* sp. CHX1100. Both strains demonstrated the capability to degrade cycloalkanes (C5 - C8), while only the strain CHX1100 was able to use short n-alkanes (C5 - C8) as a sole source of carbon and energy. Growth of *Acidovorax* sp. CHX100 using cyclohexane was much faster compared to *Chelatococcus* sp. CHX1100. The strains were able to degrade...



[READ ONLINE](#)
[1.43 MB]

Reviews

This ebook is definitely worth getting. Yes, it is play, still an interesting and amazing literature. I am delighted to inform you that here is the finest book i have go through in my own daily life and may be he finest pdf for possibly.

-- **Dr. Catherine Hickle**

This pdf is definitely worth getting. I have got read and i am sure that i will going to read once more yet again in the future. I discovered this pdf from my dad and i encouraged this book to find out.

-- **Korbin Bruen**